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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,771	06/20/2003	Jessica E. LeMay	460.2174USU	7298

7590 11/16/2005

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EXAMINER
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HILL, LAURA C

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/601,771	Applicant(s) LEMAY ET AL	
	Examiner Laura C. Hill	Art Unit 3761	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, see pages 16-21, filed 28 September 2005, with respect to the rejection(s) of claim(s) 1-10, 13-22, 24-25, 27-28, 30, 61, 63-64 and 66-73 under 35 USC 103(a) over Suga (2001/0056253) in view of Berger et al. (US 3,895,634) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection of claim(s) 1-10, 13-22, 24-25, 27-28, 30, 61, 63-64 and 66-73 is made in view of under 35 USC 103(a) over Suga (2001/0056253) in view of Berger et al. (US 3,895,634).

Applicant's arguments filed 28 September 2005 with respect to the rejection of claims 11, 23, 26, 29, 62 and 62 under 35 USC 103(a) over Suga in view of Berger in further view of Werner (US 3,765,416) have been fully considered but they are not persuasive as discussed below.

***Drawing/Specification/Claim Objections***

The objections of drawings under 37 CFR 1.83(a), the objection of the title, and the objection of claims 1 and 26 have been removed.

***Claim Language Interpretation***

2. The 'taper ratio' is defined as the ratio of the length of the taper projection along a longitudinal barrel axis to the projection length along a radius as defined by Applicant on page 6, lines 1-5 of the instant specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-10, 13-22, 32-61, 63-64 and 66-73 are rejected under 35 U.S.C. 103(a) as being obvious over Suga (US 2001/0056253; herein 'Suga') in view of Berger et al. (US 3,895,634; herein 'Berger'). Regarding claims 1-6 Suga discloses tampon applicator comprising a barrel 2 having a tapered insertion end having two petals and a taper ratio of 3-4

[taper projection length = tapered tampon length A = 20-60 mm;

therefore taper ratio= tapered length A/barrel radius D=

= 20/8 to 60/20=3-4 (figure 2, paragraph 0011, lines 9-19).

Suga *does not expressly disclose* a petal thickness. **Berger** discloses a tampon inserter 10 with a front barrel member 14, which tapers at its rear end and having a plurality of triangular segments/petals 30 (col. 5, ll. 9-11, figure 1). Berger further discloses the

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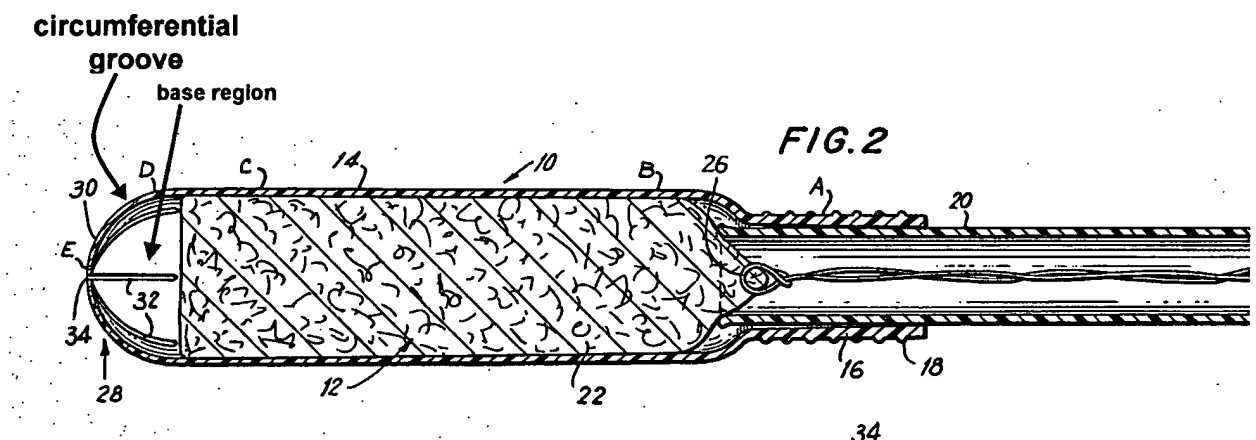
cross-sectional thickness of the petals will be at least 0.005 inch and most preferably at least 0.0075 inch that is less than the mean cross-sectional thickness of the cylindrical portion of front barrel member 14 (col. 7, ll. 19-23). Berger further discloses substantially uniform petal thickness (figures 1 and 4). Berger et al. *does not expressly disclose* a taper ratio. One would be motivated to modify the petals of Suga with the uniform petal thickness of Berger to provide an easily-inserted apparatus since both references are in the same field of endeavor; tampon applicators with a tapered barrel and a plurality of petals. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the petals, thus providing the claimed petal thickness.

Alternatively, taper ratio and petal thickness are result effective variables since they are a result of the overall tampon applicator size and the thickness/diameter of the tampon applicator. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suga/Berger with taper ratio and petal thickness values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 8-10 Suga/Berger do not expressly disclose the petal thickness varies in the claimed values. Petal thickness variation is a result effective variable since it is at least a result of the tampon applicator thickness. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Suga/Berger et al. with petal thickness variation values, since it has been held that discovering an optimum value of a result effective variable involves only

routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 13-22 Berger further discloses a finger grip 16, the area, which contains a plurality of circumferentially, disposed depressed treads/ribs 18 (col. 5, ll. 9-14 and figures 1 and 2) and a plurality of triangular segments/petals 30 that are separated by space/radial slit 32 between the segments/petals and extending below a base region, said base region having a circumferential groove on the outer wall (col. 5, ll. 35-38, figures 1, 2 and 4).



Regarding claim 32 Suga/Berger disclose a tampon applicator with two petals as discussed above with respect to claim 19. Berger et al. further discloses weakened tip/base region 34 that is rounded to reduce the possibility of segments/petals 30 overlapping at their juncture to prevent possible scratching of vaginal tissue during use (col. 5, ll. 38-41). The method of forming the device (i.e.: 'formed by bending said petals back and forth, thereby breaking one or more bonds') is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given little patentable weight.

Regarding claims 33-36 Berger further discloses the tampon inserter is formed from cardboard or polyolefins such as polyethylene (column 6, lines 36-45).

Regarding claim 37 see the discussion above with respect to claims 1 and 33.

Regarding claims 38-42 see the discussion above with respect to claims 1 and 2-6.

Regarding claims 43-50 see the discussion above with respect to claims 1 and 7-14.

Regarding claims 51-60 see the discussion above with respect to claims 1 and 15-24.

Regarding claims 61, 63-64 and 66-73 S see the discussion above with respect to claims 1, 12 and 25-37.

4. Claims 11-12, 23-31, 62, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga (US 2001/0056253; herein 'Suga') in view of Berger et al. (US 3,895,634; herein 'Berger') as applied to claim 1, and in further view of Werner et al. (US 3,765,416; herein 'Werner'). Suga/Berger *do not expressly disclose* a barrel taper ratio, ratio of extension, slit to groove ratio, barrel maximum outside diameter values. **Werner** discloses tampon 24 encased in plastic tube/barrel 26 having a tapered insertion end with triangular segments/petals 28 (col. 4, ll. 39-42, figures 4 and 5). Werner further discloses a barrel taper ratio of the largest outside barrel radius A to a radius at the base of insertion end B of 1.04 [ $A/B=0.579$  inch/ $0.556$  inch] (col. 3, ll. 30-34). One would be motivated to modify the barrel of Suga/Berger with the barrel taper ratio of Werner for improved insertion since the references are in the same field of

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endeavor; disposable tampon applicators with tapered ends and petals. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the barrel and thus providing a barrel taper ratio.

Alternatively, barrel taper ratio, ratio of extension, slit to groove ratio, barrel maximum outside diameter are result effective variables since they are at least a result of the overall applicator barrel size. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to It would have been obvious to one having ordinary skill in the art at the time the invention was made to Suga/Berger/Werner with the aforementioned values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Hill whose telephone number is 571-272-7137. The examiner can normally be reached on Monday through Friday (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura C. Hill  
Examiner  
Art Unit 3761

LCH



TATYANA ZALUKAEVA  
SUPERVISORY PRIMARY EXAMINER

